

Middle East Technical University



Department of Computer Engineering



`A Unified News Exchange Server`

Weekly Report #2

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"NewsAgent"

by

i\$T€ Yazılım
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Hilal KARAMAN:

This week, I have searched through the internet for projects similar to *NewsAgent*. Among these, the one that is closest to ours was a project belonging to an Austrian university student. With my project partners, we all studied on these projects in a detailed way. They helped me to shape my ideas about our project. I have discussed the main points of *NewsAgent* with other members according to the existing ones and our requirements. We made some decisions about the structure of our project after doing some research. We divided research job into categories and shared among the members. My investigation topic was “Hibernate” which I want to mention briefly. Hibernate is a tool which provides an object relational query service. Instead of writing Sql queries manually, Hibernate will allow us to express queries in its own language HQL (Hibernate Query Language). For example, if we write Java code, Hibernate for Java will generate SQL itself. No matter what the kind of our database is, we will be able to use the tool since it is adaptable to all kinds of SQL databases. After investigating this tool, I realized that it relieves us from the load of result set handling and object conversion, so the coding procedure becomes lighter. I also examined the syntax used in Hibernate and I think that it is easier to use it, instead of dealing with SQL queries. It seems to be advantageous to use this tool but we will decide it later, after the decision of the programming language and some other researches on this topic.

Ali Aml SINACI:

I have conducted a research on the existing news servers and their file systems. I have investigated the mechanism that how they store the articles, how they retrieve them in a really fast fashion. Most of the USENET news servers use their own file systems to store the articles efficiently. We have discussed this topic with the team members and we are continuing on investigating. Because storing style of articles, retrieving mechanism is very important for the speed of the system. We are thinking on a hybrid system which is a mixture of operating system file system and database server. We could make some indexing from the database to the files or we could archive the old articles in the file system.

I have also looked for the XML Web Services architecture. We are required to design the interface of the core as web services. Java web services and .NET web services are the main two service methods being used commonly. .NET web services are easier to use but Java web

services are more portable and more powerful as I have read on the internet. Actually, this choice is directly related to the programming language that we will use in the implementation phase. But, for now it seems that java web services are more convenient for us because portability is a very important point for NewsAgent.

We will decide on how we will store articles and the web service architecture that we will use for the core after more investigation.

Goncagül DEMİRDİZEN:

Throughout this week we have decided to make internet research on the similar projects. I have investigated some existing systems. After individual research we have compared this system and our project together and discussed the similarities and differences. Then I have started to collect information about RSS. I have learned the syndication procedure and RSS feed formats. With the help of RSS, clients can reach the news easily without visiting the web site. After creating RSS feeds according to the format, RSS feeds are published and RSS readers can reach our RSS feeds and RSS clients who are subscribed are fed.

Moreover, I have investigated GDATA which provide a simple standart protocol on writing and reading data on the web. RSS and ATOM are XML-based syndication formats. GDATA also depends on the ATOM and RSS syndication formats however it consists some advantages on authentication and query functionality. Using some client libraries in many programming languages, GDATA requests are constructed, sent to a service and responses are received. I will also continue to examine the advantages and disadvantages of the GDATA in details and try to find out if it is suitable for our project.

Ferhat ŞAHİNKAYA:

While developing NewsAgent, we need to deal with too many articles and descriptive data of each article like its sender; date-time etc. and these data are crucial part of NewsAgent. For this reason, we should be able to deal with this huge amount of data in a consistent manner so that loss or damage of any article should not occur in the system.

This week, considering options for database servers that may be used for NewsAgent is my job in case we use a database server to store articles. I have made an internet research to identify advantages and disadvantages of using MySQL and PostgreSQL. In fact, both have different capabilities superior than the other. These superiorities can be observed depending on the system that they are used and this will provide us to make a choice among them. For instance, decisions would be different for systems which need a faster database access or

more stable data manipulation.

In addition to that, I have also examined several web servers. IIS and Apache are most commonly used web servers in the market. IIS is a product of Microsoft and Apache belongs to Java Community. For this reason, if we will use Java for the implementation of our web module, Apache seem more suitable. We will decide on the web server that we will use for web module of NewsAgent after more a detailed investigation on these issues.

I will continue to examine possible web and database server options in coming weeks.